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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/584,337

06/23/2006

Thomas Schuster

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EXAMINER

PHAM, EMILY P

ART UNIT

PAPER NUMBER

2838

MAIL DATE

DELIVERY MODE

08/19/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/584,337	Applicant(s) SCHUSTER ET AL.	
	Examiner Emily Pham	Art Unit 2838	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 May 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 8-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 8-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 6/23/2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>6/15/2009</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement (IDS) submitted on 6/15/2009 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 8-10, 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Admitted Prior Art (AAPA) in view of Zafarana et al (USP 6,078,203).

Regarding claim 8: AAPA (**Specification, lines 5-13 of page 1**) discloses a converter comprising: a device adapted to sense currents fed to an electric motor powered by the converter, the device arranged inside the converter, an additional filter that is connected to an analog-to-digital converter. AAPA does not disclose a nonlinear filter and output signals of nonlinear filter are fed to an additional filter. Zafarana et al (**FIG 3**) teaches it is well known in the art to feed the output signals of a nonlinear filter

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(7) to a linear filter (2). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the nonlinear filter and a linear filter in the motor control system disclosed by AAPA, as taught by Zafarana et al, for the purpose of controlling gain of the transmitted signals within desired values **(Zafarana et al., Abstract).**

Regarding claim 9: AAPA **(FIG 1)** discloses the analog-to-digital converter **(page 2, lines 28-31)** is integrated in one of (a) a microcontroller and (b) a microprocessor **(2) (item 2 of FIG 1 and item 2 of FIG 2 are not different because they are labeled the same; applicant argued on page 3 of Applicant Arguments/Remarks that a microprocessor can include an integrated analog to digital converter; it is also well known in the art to have analog to digital converter included in microprocessor).**

Regarding claim 10: Zafarana et al **(FIG 1)** teaches the nonlinear filter includes a run-up transmitter **(integrator 8; transmitter is a device for transmitting signals, integrator 8 has input error signal ERR and output signal ERRm therefore it is considered as a device for transmitting signals).**

Regarding claim 12: AAPA **(Specification, lines 5-13 of page 1)** discloses the additional filter includes a low-pass filter.

Regarding claim 13: AAPA in view of Zafarana et al discloses the claimed invention except for a value corresponding to a rated current of the converter is attainable for the run-up transmitter in a time between 5 and 10 μ s. It would have been obvious to one having ordinary skill in the art at the time the invention was made to

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achieve a value corresponding to a rated current of the converter for the run-up transmitter in a time between 5 and 10 μ s, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F. 2d 272, 205 USPQ 215 (CCPA 1980).

Regarding claim 14: AAPA in view of Zafarana et al discloses the claimed invention except for the PT1 filter has a time constant having a value one of (a) between 15 and 25 μ s and (b) approximately 20 μ s. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the PT1 filter with a time constant having a value one of (a) between 15 and 25 μ s and (b) approximately 20 μ s, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233. It has also been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F. 2d 272, 205 USPQ 215 (CCPA 1980).

4. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Admitted Prior Art (AAPA) in view of Zafarana et al (USP 6,078,203) and further in view of Goldberg (USP 3,714,470).

Regarding claim 11: AAPA in view of Zafarana et al discloses claimed invention except for the run-up transmitter including a comparator and an integrator. Goldberg (**FIG 1**) teaches it is well known in the art for the run-up transmitter (**Variable Duty Cycle Signal Generator**) including a comparator (**16**) and an integrator (**14**).

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Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the Variable Duty Cycle Signal Generator in the motor control system disclosed by AAPA in view of Zafarana et al, as taught by Goldberg, for the purpose of maintaining linear change of output signal in triangular shape (**Goldberg, Abstract**).

Response to Arguments

5. Applicant's arguments filed 5/29/2009 with respect to claims 8 and 9 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Emily Pham whose telephone number is (571)270-3046. The examiner can normally be reached on Mon-Thu (7:00AM - 6:00PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jayprakash Gandhi can be reached on (571) 272 - 3740. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jessica Han/
Primary Examiner, Art Unit 2838
August 2009

EP